

5. Digital Ortho Photographs

DCM has compiled and maintains an archive of historical shoreline near-vertical aerial color and black and white photography. Photography is also available from other sources including USGS, National Agriculture Imagery Program (NAIP), and individual county governments. Contiguous aerials of the entire oceanfront shoreline were taken by DCM in 1998 and 2004 (0.5' resolution or 1:100 scale). In 2003, post-Isabel aerials were taken of the ocean shoreline by USGS with the exception of Dare and Hyde counties (2' resolution or 1:400 scale). In 2006, the NAIP created mosaics from orthotiles for the entire coastline (1' resolution or 1:200 scale). Various counties also have oceanfront aerial photography from a variety of dates, varying in resolution and scale. See the regional sections for tables detailing the available digital orthophotos.

6. Historical Shorelines and Erosion Rates

a) Historical Shorelines

In support of coastal planning efforts, the DCM began developing a historical shoreline database dating back to 1933. Table II-6 provides a summary of the shorelines compiled by DCM. The primary source of historical data is the geo-referenced T-Sheets, provided by the NOAA Coastal Services Center (CSC). DCM has collaborated with the USGS and USACE to document the most recent shorelines both based on delineation of wet dry line as interpreted from ortho photography as well as deriving the Mean High Water Line (MHWL) based on Light Detection and Ranging (LiDAR) survey data.

Table II-6. NCDCM and USGS Delineated Oceanfront Shorelines

Date	Coverage	Type	Source
1933-1952	NC Shoreline (Bird Island to Kill Devil Hills)	NOS T-Sheet (MHW)	DCM
1940-1962	NC Shoreline (Kill Devil Hills to VA)	Photo-Wet/Dry	DCM
1998	Entire NC Shoreline	Photo-Wet/Dry	DCM
2003	NC Shoreline (Bird Island to Bear Island)	NOAA Photo-Wet/Dry	DCM
2004	Entire NC Shoreline	NCDCM Photo-Wet/Dry	DCM
1849-1873	Entire NC Shoreline	NOS T-Sheet (MHW), CERC map	USGS, Coastal Carolina
1925-1946	Entire NC Shoreline	CERC map, USACE Photos, NOS T-Sheet (MHW)	USGS, NOAA, DCM
1970-1988	Entire NC Shoreline	CERC map, NOS T-Sheet (MHW)	USGS, NOAA, Coastal Carolina
1997	Entire NC Shoreline	LiDAR MHW Shoreline	USGS

GIS shape files of historical shorelines may be accessed via DCM's website at <http://dcm2.enr.state.nc.us/Maps/chdownload.htm>.

Referenced LiDAR data used to derive the 2004 shoreline is posted on NOAA's website at http://www.csc.noaa.gov/crs/tcm/about_ldart.html.

In addition to the statewide oceanfront shoreline datasets, DCM has compiled a historical shoreline database in the vicinity of inlets. Reference to these data can be found in the regional sections of this report.

The inlet historical shoreline data set has served as the basis for the analysis of the Inlet Hazard Area (IHA) Areas of Environmental Concern (AECs) for the state's 12 developed